



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,390	09/26/2003	Fangjun Jiang	81076421/201-1498	2389
28395	7590	08/28/2007		
BROOKS KUSHMAN P.C./FGTL 1000 TOWN CENTER 22ND FLOOR SOUTHFIELD, MI 48075-1238			EXAMINER VANAMAN, FRANK BENNETT	
			ART UNIT 3618	PAPER NUMBER
			MAIL DATE 08/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/605,390

Applicant(s)

JIANG ET AL.

Examiner

Frank Vanaman

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 23, 25-27 is/are rejected.
- 7) ☒ Claim(s) 21,22 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Continued Examination Under 37 CFR 1.114**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 24, 2007 has been entered.
2. Claims 1-16 and 21-27 are pending with claims 25-27 being newly added.

**Claim Rejections - 35 USC § 102**

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US PGPub. 2002/0019687). Suzuki et al. teach a method for operating a hybrid vehicle with an engine (1) and an electric motor (2) and including a routine for stopping the engine responsive to a plurality of conditions which cause the engine (1) to be stopped or placed into a stopped stand-by condition, including a condition associated with the engine and a control of the system based on a vehicle speed, battery state of charge and auxiliary loading, whereupon when one or more conditions fall into a category of enabling an engine standby condition, the engine standby mode is enabled (paragraphs 0035, 0036, 0037, 0038).

**Claim Rejections - 35 USC § 103**

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1-8, 11, 14-16, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US PGPub. 2002/0019687, cited by applicant). Suzuki et al. teach a method for operating a hybrid vehicle with an engine (1) and an electric motor (2) and including a plurality of conditions which cause the engine (1) to be stopped or placed into a stopped stand-by condition, including: an engine condition

Art Unit: 3618

(paragraph 0036, lines 7-9), a condition associated with the control of the system (paragraph 0038) including a vehicle speed and an accelerator position - particularly a condition where the vehicle speed is essentially zero and/or the accelerator is released (note figure 3), a condition associated with the power source (paragraph 0035, lines 15-18) wherein a battery state of charge is greater than a predetermined amount, and when a condition of a climate control system does not require power from the engine (col. 0035, lines 13-15). The reference to Suzuki et al. fails to explicitly teach the generation of flags to annunciate the various conditions associated with the engine shut-off or stand-by condition, however in view of Suzuki teaching that an envisioned controller device may be a general purpose computer (see paragraph 0051, lines 14-19), it would have been obvious to one of ordinary skill in the art at the time of the invention to use flags in a program for the purpose of maintaining an instantaneous array of all conditions present in the vehicle which would require the change in status or maintenance of an existing status.

As regards the battery state of charge (claim 8), the reference to Suzuki et al. fails to specifically teach that the predetermined amount is a minimum, however in view of the condition associated with a state of charge decreasing to a quantity where charging is deemed necessary, it would have been obvious to one of ordinary skill in the art at the time of the invention to define the amount above which charging is deemed unnecessary as a minimum amount for successful operation of the vehicle.

As further regards claims 26 and 27, the combined references fail to explicitly teach the engine stopping or standby as occurring only when all flags indicate an engine stopped condition (i.e., a prohibition of stopping or standby when at least one flag does not indicate a stop condition). Inasmuch as it is understood that a function or device which does not indicate an engine stopped condition would continue to require motive force from the engine, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to continue to operate the engine so as to ensure that any device which continues to require power from the engine will be provided with the required power.

7. Claims 9, 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Oba et al. (US 6,176,807, cited by applicant). The reference to Suzuki et al. is discussed above and fails to teach an arrangement which further monitors a motor state or condition and a transmission condition. Oba et al. teach a system for controlling the running and stopping (or stand-by) of an engine, including the steps of determining an operating condition of the motor (S52, figure 11), and additionally a transmission condition (gear ratio, S51) and causing an engine shut-off flag (decision "YES" at S56) based on the motor condition (decision "YES" at S52) and transmission condition (S56). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a motor and transmission condition determination step as suggested by Oba et al. with the vehicle control arrangement of Suzuki et al., for the purpose of preventing the use of the engine in operating regions where the engine efficiency is degraded.

As further regards claims 10 and 13, the combined references fail to explicitly teach the engine stopping or standby as occurring only when all flags indicate an engine stopped condition. Inasmuch as it is understood that a function or device which does not indicate an engine stopped condition would continue to require motive force from the engine, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to continue to operate the engine so as to ensure that any device which continues to require power from the engine will be provided with the required power.

#### **Allowable Subject Matter**

8. Claims 21, 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Response to Comments**

9. Applicant's comments, filed with the amendment and request for continued examination have been considered. Applicant has asserted that the reference to Suzuki et al. does not meet the limitations recited in claim 23. The examiner disagrees. The

Art Unit: 3618

control of engine operation based on engine condition, such as loading or efficiency is discussed in Suzuki et al. at paragraphs 0035, 0036, 0037 and 0038. Note more particularly that loading on the engine is not solely a characteristic of the control system (paragraph 0035 and paragraph 0036) and certainly constitutes an engine condition to the breadth actually recited in the claims. Applicant is reminded that the speed/acceleration characteristic curve in figure 3 which applicant attempts to describe as the only characteristic related to the engine condition (also with respect to claims 1, 11, further discussed below) is also not the sole characteristic for determining a loading condition of the engine.

Applicant's reference to applicant's own specification is noted, however it appears as though the features upon which applicant relies are not actually recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

*As regards reading unclaimed limitations from the specification into the claims*

From MPEP 2111:

During patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. In *re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In *re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969) The court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from 'reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.). See also *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997).

As regards the rejection of claims 1 and 11, for example as being unpatentable over Suzuki et al., applicant has adopted a piecemeal approach to the interpretation of Suzuki et al., in an apparent attempt to relate engine loading only to vehicle speed and accelerator pedal condition. This is, at best, a mis-construction of the reference, which further takes into account engine loading based on the at least the operation of an air-conditioning system and which takes into account an optimal fuel efficiency line, which constitutes an engine condition to the breadth this limitation is actually recited in the claims.

Many of the difficulties encountered in the prosecution of patent applications may be alleviated if each applicant includes, at the soonest possible time, claims varying from the broadest to which he or she believes he or she is entitled to the most detailed that he or she is willing to accept.

The examiner notes that applicant, while acknowledging the allowability of claims 21, 22 and 24, has expressly not placed these claims in clear condition for allowance despite their allowability having been indicated in a previous office action.

### Conclusion

10. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3618

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A response to this action should be mailed to:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450,

Or faxed to:

PTO Central Fax: 571-273-8300

**F. VANAMAN**  
**Primary Examiner**  
**Art Unit 3618**

  
8/23/07